SunFire®

INSTALLATION AND OPERATION MANUAL

SUNFIRE GAS RESTAURANT RANGE MODELS SX-6-26A AND SX-6A

FOR YOUR SAFETY:
DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE

WARNING:
IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY, OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT

PLEASE READ ALL SECTIONS OF THIS MANUAL AND RETAIN FOR FUTURE REFERENCE.

THIS PRODUCT HAS BEEN CERTIFIED AS COMMERCIAL COOKING EQUIPMENT AND MUST BE INSTALLED BY PROFESSIONAL PERSONNEL AS SPECIFIED.

For Your Safety:
Post in a prominent location, instructions to be followed in the event the user smells gas. This information shall be obtained by consulting your local gas supplier.

Users are cautioned that maintenance and repairs must be performed by a Garland authorized service agent using genuine Garland replacement parts. Garland will have no obligation with respect to any product that has been improperly installed, adjusted, operated or not maintained in accordance with national and local codes or installation instructions provided with the product, or any product that has its serial number defaced, obliterated or removed, or which has been modified or repaired using unauthorized parts or by unauthorized service agents.
For a list of authorized service agents, please refer to the Garland web site at http://www.garland-group.com.
The information contained herein, (including design and parts specifications), may be superseded and is subject to change without notice.

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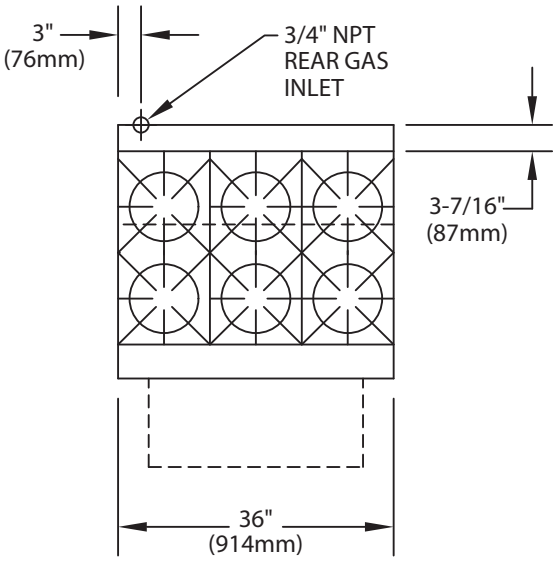
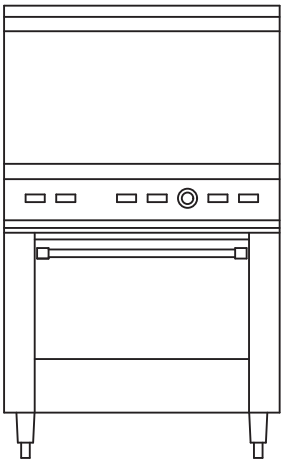
DIMENSIONS AND SPECIFICATIONS

Mode Number	Description	Total BTU/Hr	Shipping Information		
			Lbs.	Kg	Cube
SX-6-26A	Six Open Burners w/26" Oven	162,000	446	202	38.0
SX-6A	Six Open Burners w/open storage	132,000	346	157	38.0

Width	Depth	Height		Oven Interior			Combustible Wall Clearance	
		w/Legs	w/o Legs	Height	Depth	Width	Sides	Rear
36" (914mm)	33-1/8" (841mm)	38-1/2" (978mm)	32-1/2" (826mm)	13-1/2" (343mm)	22" (559mm)	26-1/4" (667mm)	9" (229mm)	6" (152mm)



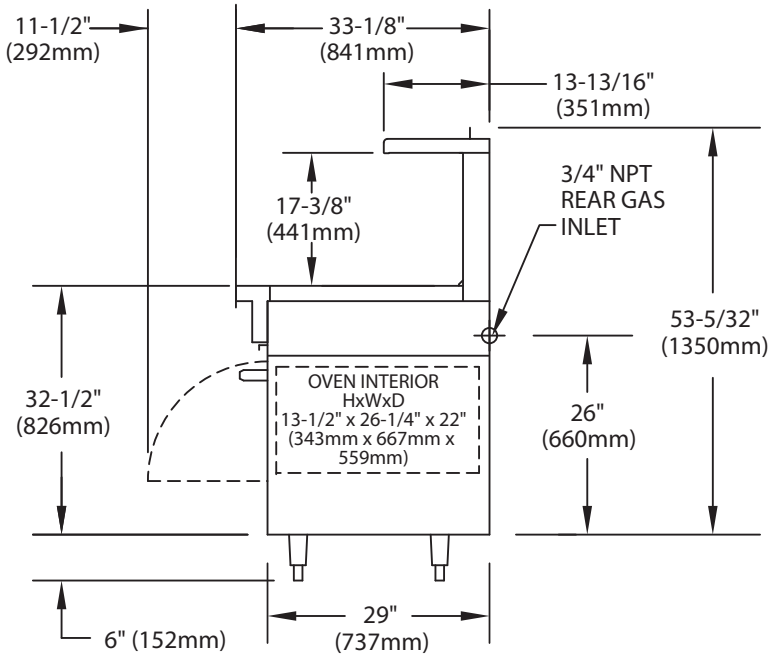


Burner Ratings (BTU/Hr)	
Open	Oven
22,000	30,000

Entry Clearances	
Crated	Uncrated
46" (1168mm)	34" (864mm)

These appliances are intended for commercial use by professionally trained personnel.

It is the responsibility of the installer to ensure that installation complies with national and local codes.



DIMENSIONS AND SPECIFICATIONS, Continued

GAS PRESSURES			
Minimum Supply Gas Pressure		**Operating Pressure**	
Natural Gas:	1.12 kPa.	Natural Gas:	1.0 kPa.
Propane:	2.75 kPa.	Propane:	2.75 kPa.

NOMINAL GAS CONSUMPTION AND INJECTOR SIZE						
	Natural Gas			**Propane Gas**		
	INJ. DIA. mm	MJ/H	Gas Pressure (kPa)	INJ. DIA. mm	MJ/H	Gas Pressure (kPa)
FULL SIZE OVEN	2.5	29.5	1.0	1.55	31.6	2.75
OPEN TOP	2.08	21.4	1.0	1.32	21.4	2.75

INTRODUCTION

1. Check crate for possible damage sustained during transit. Carefully remove unit from crate and again check for damage. Any damage to the appliance must be reported to the carrier immediately.
2. The wires for retaining the burners and other packing material must be removed from units. Any protective material covering stainless steel parts must also be removed.
3. All equipment is shipped from the factory with legs fitted, unless otherwise specified. Where the range is to be mounted on a dais or cove base, it is shipped without legs. Legs must be fitted to the oven when it is installed on a combustible floor.
4. The type of gas and supply pressure that the equipment was set-up for at the factory is noted on the data plate and on the packaging. This type of gas supply must be used.
5. Do not remove permanently affixed labels, warnings or data plates from the appliance, for this may invalidate the manufacturer's warranty.

Clearances

Construction	Sides	Rear
Combustible	9" (230 mm)	6" (152 mm)
Non-combustible	0 mm	0 mm

Siting

The floor on which the appliance is to be sited must be capable of adequately supporting the weight of the appliance and any ancillary equipment.

Units with ovens must be fitted with legs if installed on a combustible floor.

Appliances Equipped With Casters

1. The front casters on the appliance are equipped with brakes to limit the movement of the appliance without placing any strain on the connector or quick-disconnect device or its associated piping.
2. Please be aware; required restraint is attached to a bracket (which is located on the rear caster closest to the gas connection), and if disconnection of the restraint is necessary; be sure to reconnect the device after the appliance has been returned to its original position.

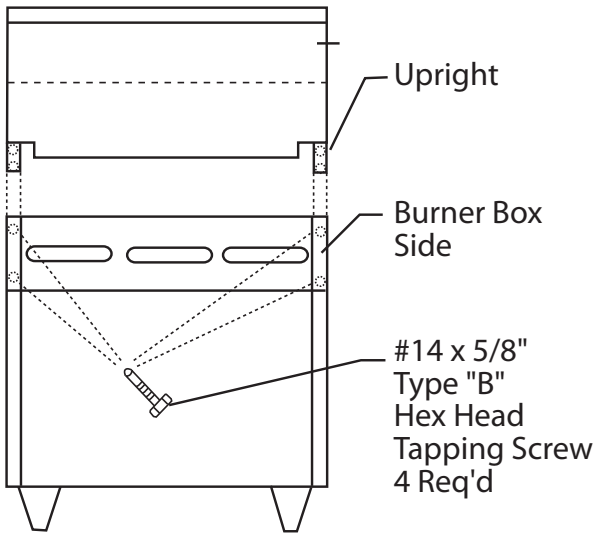
NOTE: The installation shall be made with a connector that complies with the current applicable A.G.A Standards.

Appliances Equipped With Legs

1. Raise the front of the appliance and block. Do not lay the appliance on its back.
2. Position leg insert in leg retainer opening and tap upward until the insert seats at the collar flange.
3. Repeat leg insert installation for the other legs and adjust all four legs to the same height.
4. Legs can be further adjusted to level the appliance and to compensate for uneven flooring.

Installing The Backguard Or Shelf

1. Rear of range must be easily accessible.
2. Place the backguard, high shelf, salamander, or cheesemelter on the rear of the range, slipping the support brackets into the openings in the burner box sides.
3. Securely fasten the support brackets to the burner box sides with (4) #14 x 5/8 Hex washer head, type B tapping screws. (Hardware package is supplied).



Ventilation Air

The following notes are intended to give general guidance. For detailed recommendations, refer to the applicable code(s) in the country of destination.

Proper ventilation is highly essential for optimum performance. The ideal method of ventilating open-top equipment is the use of a properly designed canopy that should extend 152mm, beyond all sides of the appliance(s) and 1981mm above the floor.

A strong exhaust will create a vacuum in the room. For an exhaust vent to work properly, replacement air must enter the room. The amount of air that enters must be equal to the amount exhausted.

All gas burners and pilots need sufficient air to operate. Large objects should not be placed in front of the appliance(s) that would obstruct the flow of air into the front.

Statutory Regulations

The installation of this appliance must be carried out by a competent person and in accordance with the relevant regulations, codes of practice and the related publications of the country and destination.

This appliance must be installed in accordance with the manufacturer's instructions, local gas fitting regulations and requirements of the A.G.A. 601 Installation Code. All burner adjustments and settings should be made by a qualified gas technician.

Gas Connection

The local gas authority should be consulted at the installation planning stage in order to establish the availability of an adequate supply of gas and to ensure that the meter is adequate for the required flow rate. The pipe work from the meter to the appliances must be of an appropriate size.

All fixed (non-mobile) appliances MUST be fitted with a manual gas-cock upstream of the appliance to provide a means of isolation for servicing or cleaning purposes. A union or similar means of disconnection must be provided between the gas-cock and the appliance.

A manually operable valve must be fitted to the gas supply to the kitchen to enable it to be isolated in an emergency. Wherever practical, this shall be located either outside the kitchen or near to an exit in a readily accessible position.

Where it is not practical to do this, an automatic isolation valve system shall be fitted which can be operated from a readily accessible position near to the exit.

At locations where the manual isolation valve is fitted or the automatic system can be reset a notice MUST be fitted stating:

"ALL DOWNSTREAM BURNER AND PILOT VALVES MUST BE TURNED OFF PRIOR TO ATTEMPTING TO RESTORE THE SUPPLY. AFTER EXTENDED SHUT OFF, PURGE BEFORE RESTORING GAS."

Before assembly and connection check gas supply.

A. The type of gas for which the unit is equipped is stamped on the data plate located behind the lower front panel. Connect a unit stamped "NAT" only to natural gas; connect one stamped "PRO" only to propane gas.

B. If it is a new installation have the gas authorities check meter size and piping to assure that the unit is supplied with necessary amount of gas pressure required to operate the unit.

C. If it is additional or replacement equipment have the gas authorities check pressure to make certain that existing meter and piping will supply fuel to the unit with no more than 0.15 kPa pressure drop.

NOTE: When checking gas pressure, be sure that all other equipment on the same gas line is on.

The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system pressures in excess of 3.45kPa.

Adequate clearance must be provided for servicing and proper operation.

THIS APPLIANCE IS NOT RECOMMENDED FOR RESIDENTIAL INSTALLATION.

TESTING & ADJUSTMENT

Testing

All fittings and pipe connections must be tested for leaks. Use approved gas leak detectors, soap solution or equivalent, checking over and around all the fittings and pipe connections. DO NOT USE A FLAME! Accessibility to all gas lines and fittings require that valve panel(s), lower front panel(s), and/or oven rack(s) be removed. All parts removed, (including fasteners), should be stored safely for re-installation.

1 Be sure that all valves and thermostats are in the "OFF" position.

2. Turn on the main gas supply valve. Light all top section pilots.

3. Leak test all valves and fittings as described at the beginning of this section. Correct any leaks as required and recheck.

4. Check pilot flame on installation. If pilot adjustment is required at any time, please ensure the pilot adjustment screw is sealed and there are no leaks.

5. Light the oven pilot.

6. Set the thermostat to 260°C. Leak test all valves and fittings as described at the beginning of this section. Correct any leaks as required and recheck.

7. Shut off all valves and set thermostat dials to "OFF" or lowest position.

All units are tested and adjusted at the factory, however, burners and pilots should be checked upon installation and adjusted if necessary.

CAUTION: Gas will flow to the top section burners even if top section pilots are not lit. Gas will not be interrupted. It is the responsibility of the operator to confirm the proper ignition of each burner as it is turned on. Should ignition fail to occur 5 seconds after turning a burner on, turn the burner off, wait 5 minutes, and try again.

Adjustments

The top and oven orifices are fixed and cannot be adjusted. Proper rate is attained if the gas supply pressure is adequate. Pressure may be checked by 1/8" N.P.T. manifold pressure tap. A properly adjusted air shutter will provide for a distinct blue flame over the entire port area of the burners when at full rate.

Pilot Adjustment

All pilot adjustment valves are mounted on the range to manifold. When properly adjusted it should neither lift of the burner nor should it show a yellow tip.

Burner Gas/Air Adjustments

Variations in field conditions or rough handling of the equipment in transit may indicate the need for adjustment of primary air to the burners.

1. Check operation and adjust as below to provide a sharp blue flame at full rate.

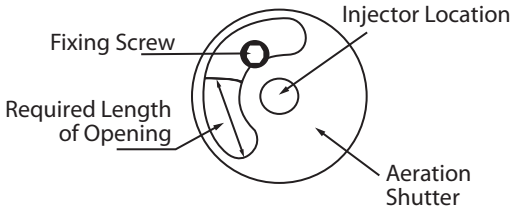
2. On the burner (open top and oven burners) locate the air shutter.

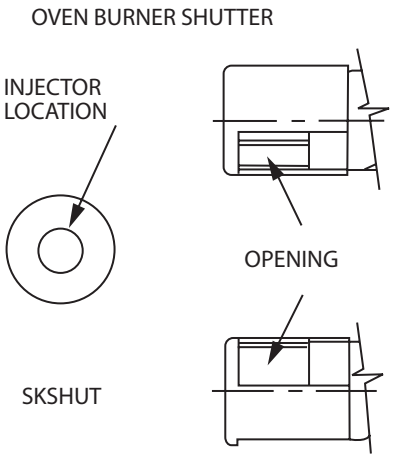
3. Loosen the lock-nut so that the air shutter turns freely.

4. Reinstall burner. Turn on gas and ignite burner.

5. Rotate the air shutter to obtain stable, sharp inner blue cones. (Slight yellow tips on oven).

If the burner flames are sharp but lift of the burner ports, reduce the amount of primary air by closing the air shutter. If the burner flames are lazy and yellow in appearance, increase the primary air by opening shutter. If poor performance persists check for proper gas pressure.





OPERATION

Open Top Burners

Lighting:

1. Open 1/4 turn pilot isolation valves.
2. Light pilots.
3. Turn valve completely on. Burner flame should be 1/2 inch (13mm), stable blue flame, and should impinge on the bottom of a pot placed on the ring grate.

Shut-Down:

1. Turn all valves to the "OFF" position.
2. If the unit is to be shut down for an extended period of time, close the pilot isolation valves.

CAUTION: Should burner ignition fail within 5 seconds, turn the burner valve off and repeat steps 1 through 5. If ignition continues to fail, consult your factory authorized service agency.

Standard Ovens

Lighting:

1. Remove oven bottom(s).
2. Depress and hold the red reset button, located on the safety valve behind the kick panel below the oven door, while lighting the oven pilot. Continue to hold the reset button for at least 60 seconds after the pilot is lit. Release the button. If the pilot does not stay lit, wait five minutes, then repeat the procedure.

Shut-Down:

1. Turn all valves and thermostats to the "OFF" position, or lowest setting.
2. If the range is to be shut down for an extended period of time, close the in-line gas valve.

Re-lighting:

1. Turn all gas valves off.
2. Wait five minutes.
3. Follow procedure under "**Lighting**" at left.

MAINTENANCE & CLEANING

Exterior Finish

Establish a regular cleaning schedule. Any spills should be wiped off immediately.

The oven should be permitted to cool down before cleaning exterior surfaces.

1. Wipe exposed cleanable surface when cool with a mild detergent and hot water. Stubborn residue spots may be removed with a lightweight non-metallic scouring pad. Dry thoroughly with a clean cloth.
2. Stainless steel should be cleaned using a mild detergent, a soft cloth and hot water. If necessary to use a non-metallic scouring pad, always rub in the direction of the grain in the metal to prevent scratching. Use a water based stainless cleaner if you want a high shine.

Stainless Steel

For routine cleaning just wash with hot water and detergent solution. Wash just a small area at a time or the water will evaporate leaving the chemicals behind causing streaking.

Rinse the washed area with a clean sponge dipped in a sanitizing solution and wipe dry with soft clean cloth before it can dry.

Use a paste (of water and a mild scouring powder) if you have to, but never rub against the grain. All stainless steel has been polished in one direction. Rub with the polish lines to preserve the original finish. Then thoroughly rinse as before.

To prevent fingerprints there are several stainless steel polishes on the market the leave and oily waxy film. Do not use on surfaces that will be in contact with food.

Stainless steel may discolor if overheated. These stains can usually be removed by vigorous rubbing with a scouring powder paste.

Use only stainless steel, wood or plastic tools if necessary to scrape off heavy deposits of grease and oil. Do not use ordinary steel scrapers or knives, as particles of the iron may become imbedded and rust. STEEL WOOL SHOULD NEVER BE USED.

Oven Interior (Porcelain Enamel)

NOTE: Disconnect line cord (if applicable) from power supply before cleaning or servicing.

1. Before cleaning oven interior, remove all oven racks and guides. Oven racks and guides can be cleaned with a mild soap and warm water or run through a dishwasher.
2. The porcelain interior can be cleaned with oven cleaners such as "Easy-Off" or "Dow Oven Cleaner". Follow product manufacturer's instructions for proper use.

Open Top Burners

Cleaning of the range top burner is a simple procedure, if done at regular intervals will prolong the life of the range and ensure good flame characteristics.

1. The most common problem with open burner range is spillage. Once the burner ports are partially plugged with food, the air-to-gas mixture is disturbed and results in an inefficient burner.
2. Wipe any spills as they occur.
3. Grids and trays should be removed daily, washed, rinsed and dried thoroughly.
4. Use a wire brush to clean the ports of the burners. Ignite and check for clogged holes.
5. If any clogged holes are apparent, the burner should be lifted out and brushed inside and out with a small Venturi brush. Each port on the burner itself should be cleaned with a properly sized wire or thumb drill. Wash with soap and hot water if grease is observed on the burners. Dry thoroughly.
6. Reinstall and check the flame pattern. Readjust the air shutter if necessary.
7. If a yellow flame appears around the edges instead of being uniformly blue, it is usually a sign of grease and dirt in the throat of the burner. Remove and clean the burner and readjust the air shutter.

Cast Iron Top Grates

Cast iron top grate(s) can be cleaned with mild soap and warm water. For baked on material, a wire brush can be used. Dry thoroughly and lightly coat with vegetable oil to help prevent rust from forming.

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